



IDD 6888
5B-E
9/27/11

September 27, 2011

Mr. James Cagle
Nu-West Industries
Conda Phosphate Operations
3010 Conda Road
Soda Springs, ID 83276

Re: Discrete Interval Groundwater Sampling
Administrative Order on Consent for Nu-West CPO Facility
Docket No. RCRA-10-2009-0186

Dear Mr. Cagle:

Pursuant to the *Work Plan for Additional Requirements*, dated July 11, 2011 (Work Plan), WSP Environment & Energy, LLC (WSP) completed flow meter testing of 11 groundwater monitoring wells at the Conda Phosphate Operations (CPO) facility. The results of flow meter testing were summarized the report, *Heat Pulse Flow Meter Testing*, (Flow Meter Report) which was submitted to EPA September 9, 2011.

In accordance with the Work Plan, the Flow Meter Report discussed intervals for groundwater sampling. In conference calls with EPA on September 15 and 22, we reviewed the results and recommended intervals for groundwater sampling. During the September 22 call, EPA requested that WSP prepare a table summarizing recommended intervals for groundwater sampling as discussed. In response, WSP has prepared this attached table for your transmittal to EPA.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Amy Hui
Project Manager

cc: P. Scott Burton, Hunton & Williams

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Table 1

Discrete Interval Pump and Packer Configurations and Expected Pumping Rates
Agrium CPO
Soda Springs, Idaho (a)

Well ID	Approximate DTW (ft btoc) (b)	Targeted Flow Zone (ft btoc) (c)	Flow Zone Type	Packer Configuration for Discrete Interval Sampling	Discrete Groundwater Sample Interval (ft btoc)	Sample Interval Length (feet)	Pump Configuration (depths in ft btoc)	Expected Achievable Pumping Rate (gpm) (d)
A-9A	80	88 - 95	Inflow	Straddle Packer	88 - 95	7	Pump set above top packer at 88	0.9 to 1.4
A-10	125	141 - 153	Inflow	Straddle Packer	141 - 153	12	Pump set at 135 drop tube to 141	0.3 to 0.45
	125	153 - 158	Inflow	Straddle Packer	153 - 158	5	Pump set at 135 drop tube to 153	0.3 to 0.45
A-11	94	95 - 105	Inflow	Bottom Packer at 107	95 - 105	13	Pump set above top packer at 95	0.9 to 1.3
	94	115 - 125	Inflow	Straddle Packer	115 - 125	10	Pump set at 100 drop tube to 115	0.9 to 1.3
A-12 (e)	82	95 - 107.5	Outflow	Straddle Packer	95 - 107	12	Pump set at 90 with drop tube to 95	0.9 to 1.3
	82	107.5 - 115	Inflow	Top packer at 107.5	108 - 115	7	Pump set at 90 with drop tube to 106	0.9 to 1.3
MW-A	31	60 - 65	Inflow	Straddle Packer	60 - 65	5	Pump set above packer at 60	1 to 1.5
MW-B	39	90 - 95	Inflow	Straddle Packer	90 - 95	5	Pump set at 50 with drop tube to 90	1.3 to 1.9
	39	110 - 120	Inflow	Top packer at 110	110 - 120	10	Pump set at 50 with drop tube to 110	1.3 to 1.9
MW05-1	86	166 - 169	Stressed Inflow	Straddle Packer	166 - 169	3	Pump set at 100 with drop tube to 166	0.9 to 1.3
	86	194 - 199	Ambient Inflow	Straddle Packer	194 - 199	5	Pump set at 100 with drop tube to 194	0.9 to 1.3
MW05-2	5	17 - 27	Inflow	Straddle Packer	17 - 27	10	Pump set above top packer at 17	2 to 3
MW05-3	42	140 - 145	Ambient Outflow (Stressed Inflow)	Straddle Packer	140 - 145	5	Pump set at 50 with drop tube to 140	1.2 to 1.7
	42	205 - 210	Unknown flow	Straddle Packer	205 - 210	5	Pump set at 50 with drop tube to 205	1 to 1.5
	42	230 - 240	Inflow	Top packer at 230	230 - 240	10	Pump set at 50 with drop tube to 230	0.9 to 1.3
MW05-4	160	175 - 180	Inflow	Straddle Packer	175 - 180	5	Pump set above top packer at 175	0.15 to 0.23
	160	180 - 200	Inflow	Straddle Packer	180 - 200	20	Pump set above top packer at 180	0.15 to 0.23
MW05-5	167	172 - 180	Inflow	Straddler Packer	172 - 180	8	Pump set above top packer at 172	0.15 to 0.23

a/ ft btoc = feet below top of casing; DTW = depth to water; gpm = gallons per minute.

b/ DTW measurements were collected during flow meter testing in August 2011.

c/ Targeted flow zone refers to a zone of inflow or outflow identified during flow meter testing where a discrete interval sample will be collected.

d/ Expected achievable pumping rate is based on the pump curves of submersible pumps designed to operate in 2-inch wells at the range of sampling depths targeted.

e/ The 108 to 115 foot interval at monitoring well A-12 will be purged under low flow conditions (e.g., less than 0.1 gpm) until field geochemical parameters are stable, at which point a groundwater sample will be collected. Subsequently, the pumping rate will be increased to the maximum achievable rate, and if significant changes in the geochemical parameters occur, an additional groundwater sample will be collected at the higher flow rate.